

Listing of amended claims

Claim 1 (currently amended) Transgenic plant seed, wherein the genome of said seed comprises a recombinant polynucleotide encoding a polypeptide ~~having an amino acid~~ selected from the group consisting of S-adenosylmethionine decarboxylase and deoxyhypusine synthase SEQ ID NO:340 through SEQ ID NO:678 and homologs thereof, and wherein plants grown from said seed exhibit an enhanced yield phenotype.

Claims 2-4 (cancelled)

Claim 5. (currently amended) Transgenic plant seed of claim 1, wherein said polypeptide ~~homolog~~ has an amino acid sequence that is at least 70% identical to an amino acid sequence selected from the group consisting of SEQ ID NO:456, 457, 458 459, 460 and 452 ~~340 through SEQ ID NO:678~~, wherein identity is determined by calculating the percentage of identical and conservatively substituted amino acids in the homolog over the length of the SEQ ID.

Claim 6. Transgenic plant seed of claim 1, wherein said homolog has an amino acid sequence selected from the group consisting of SEQ ID NO:679 through SEQ ID NO:24149.

Claim 7. (currently amended) Transgenic plant seed of claim 1, wherein said polypeptide has an amino acid sequence selected from the group consisting of SEQ ID NO: 456, 457, 458 459, 460 and 452 ~~340 through SEQ ID NO:678~~.

Claim 8. Transgenic plant seed of claim 1, wherein said seed is from a maize plant or a soybean plant.

Claim 9. (currently amended) A method of producing a plant having an enhanced phenotype, wherein said method comprises transforming plant cells with a recombinant polynucleotide comprising a promoter functional in a plant cell operably joined to encoding sequence for a polypeptide ~~having an amino acid~~ selected from the group consisting of S-adenosylmethionine decarboxylase and deoxyhypusine synthase SEQ ID NO:340 through SEQ ID NO:678 and homologs thereof, regenerating plants from said cells, and screening said plants to identify a plant having an enhanced phenotype.

Claim 10. A method of claim 9, wherein said enhanced phenotype is increased yield.

Claims 11 12. (cancelled)

Claim 13. (currently amended) A method of claim 9, wherein said homolog has an amino acid sequence that is at least 70% identical to an amino acid sequence selected from the group consisting of SEQ ID NO: 456, 457, 458 459, 460 and 452 ~~340 through SEQ ID NO:678~~.

Claim 14. A method of claim 9, wherein said homolog has an amino acid sequence selected from the group consisting of SEQ ID NO:679 through SEQ ID NO:24149.

Claim 15. (currently amended) A method of claim 9, wherein said polypeptide has an amino acid sequence selected from the group consisting of SEQ ID NO: 456, 457, 458 459, 460 and 452 ~~340 through SEQ ID NO:678~~.

Claim 16. A method of claim 9, wherein said plant is a maize plant or a soybean plant.

Claim 17. (currently amended) A recombinant polynucleotide comprising a promoter functional in a plant cell operably joined to encoding sequence for a polypeptide having an amino acid selected from the group consisting of SEQ ID NO: 456, 457, 458 459, 460 and 452 ~~340 through SEQ ID NO:678~~ and homologs thereof.

Claim 18. (currently amended) A recombinant polynucleotide of claim 17, wherein said homolog has an amino acid sequence that is at least 70% identical to an amino acid sequence selected from the group consisting of SEQ ID NO: 456, 457, 458 459, 460 and 452 ~~340 through SEQ ID NO:678~~.

Claim 19. A recombinant polynucleotide of claim 17 ~~1~~, wherein said homolog has an amino acid sequence selected from the group consisting of SEQ ID NO:679 through SEQ ID NO:24149.

Claim 20. (currently amended) A recombinant polynucleotide of claim 17 ~~1~~, wherein said polypeptide has an amino acid sequence selected from the group consisting of SEQ ID NO: 456, 457, 458 459, 460 and 452 ~~340 through SEQ ID NO:678~~.

Claim 21. (currently amended) A recombinant polynucleotide of claim 17 ~~1~~, wherein said promoter is selected from the group consisting of a rice actin promoter, a glutelin 1 promoter and a PPKK promoter.